

Contracting Methods

Program Delivery Committee

K. Joe Carpenter, Jr., P.E.
Director Division of Engineering
June 19, 2013



Conventional Contracting Methods

- Design-Bid-Build (DBB)
 - Most projects traditional delivered this way
 - ❖ Low bid constructor award.
 - ❖ Well understood by contractors and GDOT staff – Industry Standard.
 - ❖ Preferred by most contractors.
 - ❖ Process works well for the vast majority of projects.
 - ❖ Includes disincentive by way of Liquidated Damages
 - The daily amount set forth in the contract to be deducted from the contract price to cover additional costs incurred by GDOT because of the contractor's failure to complete all the contract work by the completion date specified.

Public Mantra

- “When will the project be delivered?”
- “How much delay will be experienced during construction?”
- “Get in, get out and stay out.”

The Challenge

- “How can projects be made available to the public faster while maintaining quality and cost effectiveness?”
 - GDOT under increasing pressure to reduce the duration of highway construction projects.
 - Pressure stems from the desire to reduce traffic delays and other inconveniences to the traveling public.
- And the possible answer is ???????

Alternative Contracting Methods

- Design Build (DB)
- Time-Based Incentives/Disincentives (I/D)
 - Cost Plus Time Bidding with or w/o I/D (A+B)
 - Incentives/Disincentives (I/D)
 - Lane Rental
- Construction Manager/General Contractor (CMGC)

Alternative Contracting Methods - Continued

- Design Build (DB)
 - Combines design and construction in a single contract – allowing construction to begin before all of the design details are finished.
 - GDOT Office of Innovative Program Delivery has awarded 21 projects totaling \$516 million.
 - 10 projects are currently approved for Design Build Delivery.

Alternative Contracting Methods - Continued

- Cost Plus Time Bidding (A+B)
 - Selects the low bidder based on a monetary combination of the contract bid items (A) and the time (B) needed to complete the project.
 - Utilizes Road User Costs (RUC) to establish costs for time based on impacts to the travelling public.
 - Best candidate projects are free from third party conflicts (i.e. utility relocations).
 - Used twice by GDOT on I-475 widening and I-285 resurfacing.
 - Can be applied to milestone completion within the project or total project completion time.

A+B Bidding

Example Bid Tabulation

Bidder	Contractor 1	Contractor 2	Contractor 3
Bid Amount (A)	\$10,100,000	\$9,700,000	\$12,000,000
RUC rate	\$15,000/day	\$15,000/day	\$15,000/day
Bid Time (B)	145 days	190 days	160 days
Time Amount	\$2,175,000	\$2,850,000	\$2,400,000
Total Bid	\$12,275,000	\$12,550,000	\$14,400,000

Total bid = A + B;

Example: 12,275,00 = 10,100,000 + (\$15,000/day x 145 days).

Project is awarded to Contractor 1

Alternative Contracting Methods - Continued

- Incentives/Disincentives (I/D)
 - Differ from A+B Bidding in that GDOT sets the completion date.
 - Candidate projects are same as for A+B Bidding, but better control of construction time is afforded.
 - Useful where fixed completion date required or emergency work limits competition.
 - Also utilizes RUC to establish costs for time.
 - Incentives must be large enough to motivate contractor and generally are capped at 5% to 7% of project cost.
 - Used on at least 11 GDOT projects since 1999.

Alternative Contracting Methods - Continued

- Lane Rental

- An innovative contracting technique by which a contractor is charged a fee for occupying lanes or shoulders to do the work.
- The fee based on RUC motivates the contractor to minimize the traffic delay to highway users.
- Best candidate projects are maintenance and resurfacing since they have predictable lane closures.
- GDOT has not used this method.

Alternative Contracting Methods - Continued

- Construction Manager/General Contractor (CMGC)
 - A method through which a contractor (Construction Manager-CM) consults for the Department during the design phase, the CM acts in an advisory role, providing constructability reviews, value engineering suggestions, construction estimates, and other construction related recommendations.
 - At a point prior to 100% design the CM and Department reach agreement on a Guaranteed Maximum Price (GMP).

Alternative Contracting Methods - Continued

- Construction Manager/General Contractor (CMGC)
 - The CM then begins construction, allowing for an overlap of design and construction phases.
 - Once construction starts, the CM assumes the role of General Contractor (GC) for the duration of the construction phase.
 - MAP-21 authorized the use of CMGC contracting method for delivering federal aid projects.
 - Is one of the FHWA Every Day Counts initiatives.
 - Not currently considered for use by GDOT.

Future Trends

- In the near term the majority of GDOT projects will be delivered by DBB method.
- DB method use will continue to increase with possible focus on Interstates, Freight Corridors and more diverse groups of projects – which will afford more bidding opportunities to all size of contractors.
- CMGC method will possibly gain greater acceptance in the transportation construction arena of the future.



Thank You!

Questions?